

Jira task checklist

Task Name	Description	Env	Responsibility
Obtain [SOURCE_NAME] Access & Technical Documentation	Objective Get all the access, credentials, and documentation needed so we can safely and reliably ingest data from the [SOURCE_NAME] system. ----- Description This task covers everything required to connect to the [SOURCE_NAME] system from our environment. It includes setting up user/service access, collecting connection and authentication details, understanding the data structure, and documenting how often data will be updated. The outcome is that we can successfully test a connection from Dev and have all information stored securely and centrally. ----- Scope • Access to source system • Request and obtain a user or service account for the [SOURCE_NAME] system. • Ensure the account has the correct permissions for data access (read-only unless otherwise agreed). • Connection details (as applicable) Collect API details: • Base URL • Endpoints • Required headers • Query parameters Collect database details: • Server/host • Port • Database name • Schema • Any required network info Collect SFTP details: • Host • Port • Folder/path • File naming conventions • Authentication details Obtain the required auth method and details, e.g.: • OAuth (client ID/secret, token URL, scopes, etc.) • API key(s) • Username and password • Certificates/keys Clarify any token expiry, rotation, or renewal process. • Network / IP whitelisting • Collect the list of IP addresses or ranges from which we will connect (Dev at minimum). • Share these with the source owner for whitelisting if required. • Sample data • Request sample data files or sample API responses that are representative of real data. • Use samples to validate structure, formats, and edge cases. • Frequency and SLA Confirm with the source owner: • Data refresh frequency (e.g. real-time, hourly, daily) • SLA for data availability and expected response times ----- Deliverables • Credentials	Dev	Data Engineer

	• All access credentials (accounts, keys, secrets, certificates) are stored securely in Key Vault (or the agreed secure secrets store). • Documentation • All technical and data documentation (connection details, auth steps, schema, IPs, refresh frequency, SLA) is stored in the code. • Source owner confirmation A confirmation email/message from the [SOURCE_NAME] owner stating that: • Access has been granted • Connection details and expectations (frequency/SLA) are correct ----- Definition of Done • A test connection from the Dev environment to [SOURCE_NAME] is successful using the stored credentials. • All received documentation is uploaded to the agreed central repository. • All credentials are stored securely in Key Vault.		
[ENV] : Network Whitelisting for [SOURCE_NAME]	Objective Ensure network connectivity from Dev environment Connects to [SOURCE_NAME]. Scope • Obtain outbound IP of Azure Function / Container App • Validate IP with Tanish/Marc before raising request • Raise firewall/whitelisting request for: ◦ VDI ◦ Azure Function ◦ Container App ◦ GitHub runners (if required) • Confirm port-level access (443/22/etc.) Deliverables • Approved firewall change request • Connectivity test successful Definition of Done • Connection test from Dev Azure Function successful	Dev Test Prod	Dev Ops

Collect [SOURCE_NAME] Schema and Table Metadata details	Objective Identify all source tables, fields, and any dependencies needed for [PROJECT], and document how they will be used for the purpose of [PROJECT PURPOSE]. Note - Cautious while working or check if the source will be obsolete after some, then in that case there might be some rework/effort Identify the complexity/priority for data load ----- Scope • Identify required source tables • List all source tables needed for [PROJECT]. • Capture each table's structure: schema name, table name. • Key and identifier details • Identify primary keys, composite keys, and any important business/CLI identifiers used for joins or lookups. • Data volume estimation • Estimate data volume for each required table (e.g. row counts, growth per day/month). • Note any high-volume tables that may impact performance or storage. • Sensitive data assessment • Identify columns that contain sensitive or PII (Personally Identifiable Information). • Flag these fields clearly for later masking, encryption, or access control. ----- Deliverables • Source Table Inventory Document • List of all required source tables, with basic details (schema, table name, purpose, dependencies). • Column-level Metadata • For each table: column name, data type, key/identifier flags, sensitivity/PII flags, and short description where available. ----- Definition of Done • All required source tables for [PROJECT] are identified. • Table and column details (including keys and sensitive fields) are documented in the Source Table Inventory and column-level metadata.	D ev	
Create Azure Function – [SOURCE_NAME]	Objective Build an Azure Function in the Development environment to extract data from [SOURCE_NAME] for the [USE_CASE]. Scope • Create a Python Azure Function to connect to [SOURCE_NAME] and extract the required data. • Use Python 3.11 as the runtime environment for the function. Deliverables • The Azure Function is deployed and available in the Dev environment. Definition of Done • The Azure Function runs successfully in Dev	D ev	Dev Ops

Implement Data Ingestion from [Source] to Kafka	Objective Implement ingestion pipeline to publish data from [SOURCE_NAME] to Kafka For Full Load Scope - Implement producer logic in Azure Function - Handle error scenarios Deliverables - Data published successfully to Kafka topic and Fabric Application zone - Sample messages validated - Throughput validated Definition of Done - Messages visible in Kafka - No data loss during retry - Error handling tested	Dev	Data Engineer
Implement Delta/Incremental Logic for [Source]	Objective Implement logic to ingest only new or updated records from source. Scope - Load Incremental data - Validate late-arriving data handling - Backfill support Deliverables - Metadata storage created - Successful incremental test run Definition of Done - No duplicate ingestion - Only new records processed - Metadata updated after each successful run	Dev	Data Engineer
Setup Github Repo and Create CI /CD Pipeline	Objective Set up an automated deployment pipeline for [SOURCE_NAME] so that code can be built, tested and deployed to Dev automatically, and to Prod with manual approval. Scope 1. Create GitHub repository - Create a new GitHub repository for the [SOURCE_NAME] codebase. Configure environment variables per environment - Ensure secrets are stored securely (e.g. GitHub Secrets) and are correctly used by the pipeline. Deliverables - A fully working CI/CD pipeline in GitHub Actions for [SOURCE_NAME]. - Automatic deployment to Dev on successful pipeline runs (as defined in the branching strategy). - Manual approval-based deployment to Prod with a clear approval step and responsible approvers defined. Definition of Done - Automatically built, tested, and successfully deployed to the environment via the pipeline. - Update the readme.	Dev	Data Engineer

DEV: Setup Monitoring & Data Validation for [Source]	Objective Implement monitoring and validation checks for ingestion pipeline. Scope • Enable Application Insights • Create ingestion success/failure logs • Implement row count validation • Implement schema validation check • Track ingestion duration • Validate Kafka message count vs source count Deliverables • Monitoring dashboard created • Validation queries implemented • Test failure scenario validated Definition of Done • Metrics visible in monitoring tool • Validation alerts triggered on failure	Dev Test Prod	Data Engineer
Set Up Alerting and Logging	Objective Implement automated alerting for ingestion pipeline failures and performance degradation. Scope • Configure and validate alerts for the ingestion pipeline, including: ◦ Function execution failures ◦ Kafka publish failures ◦ Zero records ingested for a scheduled run ◦ Abnormally long execution time / SLA breach • Integration of alerts with email and/or Microsoft Teams channels • Definition and configuration of appropriate severity levels (e.g. Critical, High, Medium, Low) Deliverables • Alerts tested • Alert documentation created Definition of Done • Failure simulation triggers alert • Alert reaches responsible team	Dev Test Prod	Data Engineer

Deploy [Source] data to Production	Objective Deploy the finalized Python code for the [SOURCE_NAME] system to the Production environment, following deployment and security best practices. Description This task covers preparing, validating, and deploying the final Python code for [SOURCE_NAME] into Production. It ensures that the code is production-ready, uses proper configuration and secrets management, and that deployment is done in a controlled and auditable way. Scope Setup Pull request and review it. • Deployment readiness • Confirm that the Python code has passed all required checks in lower environments (Dev / QA / UAT). • Ensure all known defects for this release are either resolved or accepted. • Configuration & secrets • Verify that all Prod configuration (environment variables, connection strings, endpoints) is set correctly. • Ensure all secrets (keys, passwords, tokens) are stored in a secure store (e.g. Key Vault, GitHub/Azure DevOps secrets) and not in code. • Deployment process • Use the approved CI/CD pipeline or standard deployment process to deploy the Python code to Production. • Follow the agreed change management process (e.g. change ticket, approvals, CAB if required). • Perform a controlled deployment (e.g. scheduled window, blue/green/canary if applicable). • Post-deployment validation • Run smoke tests or basic functional checks to confirm that the Python code runs correctly in Production. • Verify logging and monitoring are working (logs, alerts, dashboards). • Documentation & handover • Update deployment notes / release documentation with: ◦ Deployed version / commit ◦ Deployment date and time ◦ Any known issues or follow-up items • Inform relevant stakeholders that the deployment is complete. Deliverables • Python code for [SOURCE_NAME] successfully deployed to the Production environment. • Updated configuration and secrets for Production stored in the approved secure store. • Deployment / release notes documented in the project Confluence/SharePoint or release tracker. Definition of Done • Deployment to Production completes without errors using the approved process. • Smoke tests in Production pass and the application behaves as expected. • No secrets are stored in source code or plain text; all are managed via the secure store. • Deployment details are documented and communicated to stakeholders.	P r o d	Sup port Engi neer
Implement Security Policy		D ev T e st P r o d	Data Engi neer

Ingest [SOURCE_NAME] Data to [INTERMEDIATE_LAYER_NAME] for Fabric Processing	Objective Extract data from [SOURCE_NAME] and store it in the [INTERMEDIATE_LAYER_NAME] (e.g. ADLS Gen2, Blob Storage, File Share). This intermediate layer will be the trusted source for downstream loading into Microsoft Fabric. Direct ingestion into Fabric is not feasible because of: [Network restriction / API limitation / Security constraint / Performance limitation / Architectural decision]. ----- Scope • Build or configure a process to extract data from [SOURCE_NAME]. • Write the extracted data to the defined intermediate layer ([INTERMEDIATE_LAYER_NAME]). • Ensure the data in the intermediate layer is complete, consistent, and ready for ingestion into Microsoft Fabric. ----- Deliverables • Data written to intermediate layer • Data from [SOURCE_NAME] is successfully stored in [INTERMEDIATE_LAYER_NAME]. • Folder / path structure created • Clear and consistent folder or path structure in the intermediate layer (e.g. /source_name/entity/date=YYYY-MM-DD/). • Incremental load logic implemented • Logic in place to load only new or changed data (e.g. based on timestamp, watermark, or change flag). • Metadata updated • Relevant metadata is captured and maintained (e.g. load time, source system, record counts, watermark value). • Monitoring configured Monitoring and logging set up for: • Job status (success/failure) • Data volume checks • Error handling ----- Definition of Done (DoD) • Successful test execution in [ENV] • End-to-end run in the target environment ([ENV], e.g. Dev/UAT/Prod) completes successfully. • No duplicate files on re-run • Re-running the job does not create duplicate files or duplicate data in the intermediate layer. • Watermark updated correctly • Watermark or equivalent mechanism is updated after each run and used correctly for incremental loads. • Logs visible in monitoring system • Execution logs (success, failures, metrics) are visible in the agreed monitoring/logging tool. • Alert tested successfully • At least one failure/alert scenario has been tested and notifications are received by the right team. • Documentation updated • Technical documentation (process flow, paths, incremental logic, watermark strategy, monitoring) is updated in the central repository (e.g. Confluence/SharePoint). • Sign-off received from [Team/Owner] • Formal sign-off from [Team/Owner] confirming the solution meets requirements and is ready for use by downstream consumers.	D ev T e st P r od	Data Engi neer
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Setup [INTERMEDIATE_LAYER_NAME]	Objective Define and set up the [INTERMEDIATE_LAYER_NAME] (e.g. ADLS Gen2, Blob Storage, File Share) for data coming from [SOURCE], so that data can be loaded into Microsoft Fabric in a controlled and reliable way. Direct ingestion into Fabric is not feasible due to: [Network restriction / API limitation / Security constraint / Performance limitation / Architectural decision]. ----- Scope of Work 1. Intermediate Layer Setup • Storage account • Validate that the storage account [storage_account_name] exists and is suitable for this use case, • Or create a new storage account [storage_account_name] if one does not exist. • Container • Create or validate the container [container_name] in the storage account to store data from [SOURCE]. • Folder structure • Define and document the folder/path structure for organizing data (for example): ◦ /[source]/[entity]/date=YYYY-MM-DD/ • Ensure the structure supports incremental loads and downstream consumption by Fabric. • File naming convention • Define and document a standard naming pattern: ◦ "[source]/[entity]/[YYYYMMDDHHMMSS].[format]" • Clarify how each part (source, entity, timestamp, format) will be populated. • Retention policy • Define and document retention rules for data stored in the intermediate layer: ◦ Raw retention: [X days] ◦ Archive retention: [X days] ----- Deliverables • Documented intermediate layer design (storage account, container, folder structure, naming convention, retention). • Storage account [storage_account_name] created/validated for use as the intermediate layer. • Container [container_name] created/validated in the storage account. • Agreed and documented folder structure and file naming convention. • Documented retention policy for raw and archived data. ----- Definition of Done • The storage account [storage_account_name] and container [container_name] are available and ready to use. • Folder structure and file naming convention are clearly documented and approved by the relevant team/owner. • Retention policy (raw and archive) is defined, documented, and agreed. • The intermediate layer design is stored in the central documentation location and referenced for future ingestion tasks.	D ev T e s t P r od Data Engi neer
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